

Hand-held Infrared Viewer for Observation and Alignment



ElectroViewer 7215: Converts 0.4-1.5 microns Radiation to Visible

The **ElectroViewer 7215** is a high performance, hand-held Infrared Viewer designed to meet the requirements of viewing in the near IR wavelength range. Unlike any other infrared imaging device, the ElectroViewer delivers an image that is remarkably bright with edge-to-edge sharpness that far exceeds previous units! And with focusing as close as 3 inches, the ElectroViewer is the perfect tool for in-the-lab and in-the-field.

- Sharp image from edge-to-edge
- Bright, high contrast image
- Focuses as close as 3"
- Adjustable iris included
- Accepts C-mount lenses
- Interfaces to CCD cameras
- Rugged and shock-proof design

Applications

- Observation of GaAs laser diodes and IR LEDs
- Beam alignment (e.g. Nd:YAG, Ti:Sapphire)
- Thermal imaging of objects 600°C and hotter
- View *in-the-dark* processes
- Forensic analysis of inks, pigments
- Sub-surface wafer inspection (Si, GaAs)



The 7215 is ideal for locating and aligning near-infrared laser beams and for identifying stray IR reflections that may otherwise go undetected.



As a thermal imager, the 7215 can be used to view the radiation from objects hotter than about 600° C (such as the soldering iron shown).



With the 7215-202 accessory, the 7215 can also be attached to CCD cameras extending their spectral range to 1.5 microns.

Operation

- The ElectroViewer is powered by pressing and maintaining the push-button switch. The objective lens, adjusted for objects at distances from 3" to infinity, brings the scene into sharp focus producing a bright green fluorescent image seen through the eyepiece.
- High-resolution images are generated in accordance with the incident intensity of the radiation and the S-1 spectral responsivity of the photocathode material (see Spectral Response Characteristic).
- The ElectroViewer image output can either be viewed directly using the adjustable eyepiece (included) or can be attached to a CCD camera with the 7215-202 CCD Relay Lens accessory (optional), thus effectively extending the CCD's response range to beyond 1.3μm!

Specifications

Input Photocathode:	S-1 (17mm OD)
Output Fluorescent Screen:	P-20 Phosphor (6.8mm OD)
Output Resolution:	>80 lp/mm center
Peak Emission Wavelength:	550nm
Responsivity @1.06μm:	0.45-0.85 mA/W
Object Distance:	3"-to-∞
Field-of-View:	40°
Battery Life:	100 hours (typical)
Dimensions:	3 1/4" x 3 1/4" x 2 1/4" (8 cm x 8 cm x 6 cm) excl. handle, lenses
Weight:	1 1/4 lb (570g)

Model Designations

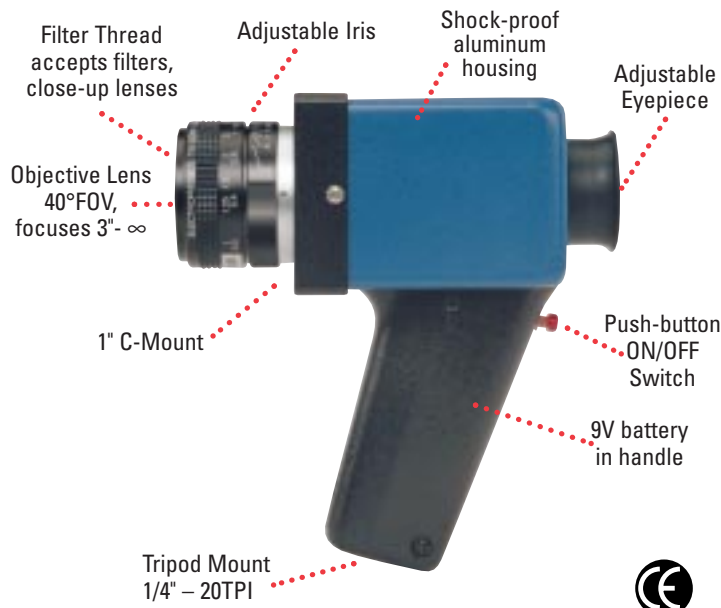
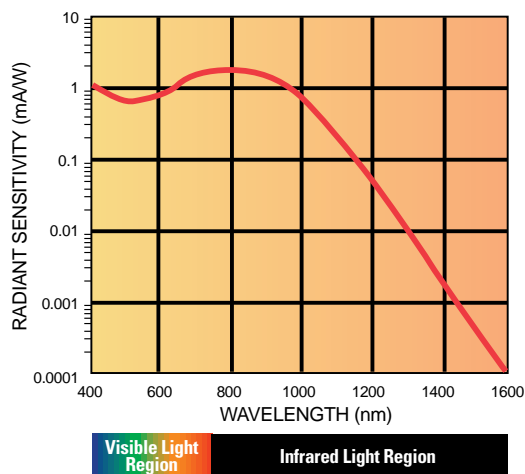
7215 - {P} {S} {AC}

Each model includes a 25mm objective lens, eyepiece, and 9V alkaline battery.

Options:

- P = Selected to detect 20mW/cm² @ 1.3μm,
50mW/cm² @ 1.5μm
- S = Toggle ON/OFF switch replaces push button
- AC = Viewer has additional AC adapter jack in parallel with 9V battery terminals.

SPECTRAL RESPONSE CHARACTERISTIC



Accessories

Model #	Description
7215-202	CCD Relay Lens (interfaces with 1/2" CCD Cameras)
XT	Extension Tube Set (reduces min.object distance to 1"-2")
CLS	Close-up Lens Set (reduces min. object distance to 2")
L16F1.6	Objective Lens, 16mm F1.6 (no iris)
L50F1.8	Objective Lens, 50mm F1.8
L135F2.8	Objective Lens, Telephoto 135mm F2.8
Z12.5-75	Objective Lens, Zoom 12.5-75mm F1.2
C7215	Carrying/Storage Case
IRFV	Visible Light Cut Filter mounts on 25mm lens
F25	Filter holder captures 1" filters onto 25mm objective lens.
LPF-*	1" Long Pass Filters *select cut-on wavelength (nm): 700, 750, 800, 850, 900, 950, 1000, more
SPF-*	1" Short Pass Filters *select cut-off wavelength (nm): 700, 750, 800, 850, 900, 950, 1000, more
IF-*	1" Band Pass Filters *select center wavelength (nm): 700, 710,...1050, 1060, more
NDF-*	1" Neutral Density Filters *select optical density: 0.1, 0.2...0.9, 1.0, 1.5, 2.0, 3.0, more



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